IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of Robert I.G. MCLEAN, et al.	Group Art Unit: 3623
Application No. 09/586,722	Examiner: Tarae, C. Michelle
Attorney Docket No. 350725-991110	**REPLY BRIEF**
Filed: June 5, 2000	2000 University Avenue
For: DATA PROCESSING SYSTEM AND METHOD THAT PROVIDES AN INTEGRATED AND COMPREHENSIVE USER INTERFACE FOR ANALYSIS OF VALUE CREATION PERFORMANCE OF A BUSINESS ENTERPRISE	East Palo Alto, CA 94303-2248 (650) 833-2000
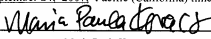
Mail Stop Appeal Brief-Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	

Dear Sir/Madam:

This is a reply brief in response to the Examiner's Answer mailed July 23, 2007, and for an appeal from a Final Office Action dated January 31, 2007.

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I.   APPELLANT'S REPLY

A.   Claims 1-5, 8-18, and 21-22 are patentable over the combination of Eder and Belani.

The Examiner maintains that claims 1-5, 8-18, and 21-22 are unpatentable under 35 U.S.C. § 103(a) in view of U.S. Patent No. 6,321,205 to Eder ("Eder") and U.S. Patent No. 6,944,777 to Belani, et al. ("Belani"). *See Examiner's Answer at 16-22.*

The Board should overturn this rejection because neither Eder nor Belani, either alone or in combination, teach or suggest every element recited in each of the claims, and because the combination of Eder and Belani produces a system that is fatally flawed.

1.   Belani does not disclose access control for hierarchical assumed variables or any resource that is comparable to assumed variables.

Claims 1-5, 8-9, 11, 14-18, and 21-22 of the present invention each recite "authorizing a user to alter one or more of the assumed variables based on a level of authorization of the user and a level of the hierarchy in which the assumed variables are positioned, wherein different levels of authorization have access to different levels of assumed variables" or a substantially similar limitation (hereinafter the "level-based variable access control" limitation). *Claims Appendix, pp. 16-23.* The Examiner concedes that Eder does not disclose this limitation. *Examiner's Answer at 20.* Belani, however, also fails to disclose or suggest level-based access control of hierarchical assumed variables and therefore cannot remedy this deficiency of Eder.

As an initial matter, Belani does not disclose assumed variables, a hierarchy of assumed variables, or any equivalent data structure, and therefore cannot disclose "authorizing a user to alter one or more of the assumed variables...." *See Appeal Brief at 9-10.* In the Examiner's answer, the Examiner proposes that Belani discloses assumed variables because "assumed variables are data" and Belani discloses data. *Examiner's Answer at 20.* But the level-based variable access control limitation does not recite "data," it recites "assumed variables." The Examiner's attempt to re-word this claim limitation to allegedly conform with the prior art is improper.

Moreover, even *assuming arguendo* that Belani discloses hierarchical assumed variables—which it does not—Belani does not disclose "authorizing a user to alter one or more of the assumed variables...." The Examiner's Answer does not even address access control of assumed variables arranged in the claimed hierarchy, only access control of a "*matrix of*

assumed variables." *Examiner's Answer at 20* (emphasis added). Again, the Examiner is improperly attempting to re-word the claim limitation to conform with the prior art. The limitation at issue does not recite access control of *a matrix* of assumed variables, it recites "authorizing a user to alter one or more of the assumed variables," which are arranged in a specific hierarchy. In other words, access control of the assumed variables in the present invention is done at the variable level, which is a finer level of granularity than access control of a matrix of variables. This difference is material because, as explained in Applicant's Appeal Brief, access control to individual assumed variables increases in complexity as the number of assumed variables increase. *Appeal Brief at 9-10*. The complexity of access control to a matrix of assumed variables, however, stays constant as the number of assumed variables increase. Furthermore, in the claimed hierarchy of assumed variables, assumed variables positioned at a lower level of the hierarchy influence one or more assumed variables positioned at a higher level in the hierarchy. Nothing in Belani discloses or suggests controlling access to the claimed hierarchical data structure in the claimed manner. In short, authorizing a user to alter one or more hierarchical assumed variables in the claimed manner is not comparable to mere access control of a matrix, database, or file.

Further, access control of a matrix as a whole is distinguishable to access control of the individual pieces of data stored in the matrix. Access control for individual pieces of data must keep track of where in the matrix particular pieces of data are stored. If the order of the data in the matrix changes (for example, as a result of one of many common database operations), the access control must be aware of this change and account for it accordingly. Access control for the matrix as a whole, however, does not need to keep track of the individual pieces of data in the matrix. In this way, access control at the data level is more complex than access control of the matrix as a whole, even if the amount of data stays constant. Again, authorizing a user to alter one or more assumed variables is not comparable to mere access control of a matrix, database, or file.

In sum, Belani does not disclose "authorizing a user to alter one or more of the assumed variables based on a level of authorization of the user and a level of the hierarchy in which the assumed variables are positioned, wherein different levels of authorization have access to different levels of assumed variables," or the substantially similar limitations that are recited in

claims 1-5, 8-9, 11, 14-18, and 21-22. Accordingly, the Board should overturn the § 103(a) rejection of these claims.

2.   **The combination of Belani and Eder produces a system that is inoperative and fatally flawed.**

Claims 1-5, 8-9, 11, 14-18, and 21-22 of the present invention also each recite "a multi-level hierarchy in which assumed variables positioned at a lower level in the hierarchy influence one or more assumed variables positioned at a higher level in the hierarchy" or a substantially similar limitation (hereinafter the "assumed variable hierarchy" limitation). *Claims Appendix, pp. 16-23.* And as discussed above, these claims each recite "authorizing a user to alter one or more of the assumed variables based on a level of authorization of the user and a level of the hierarchy in which the assumed variables are positioned, wherein different levels of authorization have access to different levels of assumed variables" or a substantially similar limitation (the level-based access control limitation). *Id.*

The Examiner maintains that Eder discloses the first limitation (the assumed variable hierarchy), Belani discloses the second limitation (the level-based access control), and the combination of Eder and Belani would produce a system containing both limitations. *Examiner's Answer at 20-21.* For the reasons discussed above, Belani does not disclose the level-based variable access control limitation. But, even *assuming arguendo* that it does, the combination of Eder and Belani still produces a system that is inoperative and fatally flawed, and the Examiner has not shown otherwise.

With regard to the Applicant's explanation of how the Eder/Belani combination is inoperative, the Examiner suggests that Applicant is "arguing against the references individually," even though the relevant portion of Applicant's Appeal Brief, Part VII.A.6, is titled "The *combination* of Belani and Eder produces a system that is inoperative and fatally flawed" and the discussion in that section focuses on the flaws that arise when Belani and Eder are combined. *Examiner's Answer at 20; Appeal Brief at 10-14* (emphasis added).

To summarize that discussion from Applicant's Appeal Brief, inheritance of permissions in the Belani resource control model flows from top to bottom, as shown in the figure below labeled "Belani." *Appeal Brief at 13.* For example, a user who is authorized to perform an operation on resource $R2$ is automatically authorized to perform an operation on the lower-level resources $R4$ and $R5$. The variable hierarchy in Eder, as shown in the figure below labeled

"Eder," requires that low-level components (e.g. the cost of raw materials) influence mid-level components (e.g. expense), which influence the high-level component "Value of current-operation."

Belani

Eder
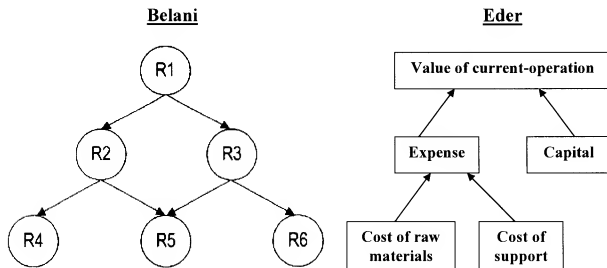
When these two models are combined, however, they become fatally flawed. For example, a user who is authorized to alter the variable "Expense" would not necessarily be authorized to alter the variable "Value of current-operation," because the resource control model of Belani flows from high-level resources to low-level resources. But if that user could not update the "Value of current-operation" variable, the Eder hierarchy would break because changes in lower-level components would no longer influence the higher-level components, as they must. *See Applicant's Appeal Brief at 13 for a more detailed discussion of this incompatibility.*

As a short aside, this incompatibly would not resolved by simply "flipping" one of the Belani or Eder figures vertically so that the arrows in both figures all flow up or all flow down. The permissions in Belani flow from the highest-level component to the lowest-level component. The relationships in Eder, by contrast, flow from low-level components to high-level components. Thus, if one flips one of the figures vertically, the incompatibility between Eder and Belani is still reflected in the fact that one set of arrows flows from high-level components to low-level components, and the other set of arrows flows in the opposite direction.

The Examiner suggests that the Eder/Belani combination would be operative in light of the fact that a Belani "user typically belongs to one or more groups having positive and negative

access rights to a particular resource." *Examiner's Answer at 21.* But, this additional disclosure is functionally duplicative of aspects of the Eder/Belani combination that the Applicant has already shown are fatally flawed.

Specifically, the "groups having positive and negative access rights" that the Examiner refers to are simply an additional source of access rights for a Belani user. For example, a Belani user may belong to a group where every member of the group has permission to access resource *R2.* Even considering the permissions that a Belani user inherits from the groups to which he or she belongs, however, a Belani user still has a certain set of permissions that flow from high-level resources to low-level resources (i.e. from *R2* to *R4,* but not from *R2* to *R1*). And it is this high-to-low inheritance prevents Belani from being compatible with Eder, as discussed above.

For example, it makes no difference whether a user of the Belani/Eder combination holds a right to alter the "Expense" value as an individual right or as a right inherited from a group. Either way, that user does not necessarily have a right to alter the "Value of current-operation" variable. And if the user does not have such a right, the Eder hierarchy breaks because low-level variables no longer influence high-level variables, as discussed above.

In sum, the combination of Eder and Belani is fatally flawed and would therefore not give rise to the "reasonable likelihood of success" required for a proper obviousness combination. Accordingly, the Board should overturn the § 103(a) rejection of claims 1-5, 8-9, 11, 14-18, and 21-22.

      3.   **The combination of Belani and Eder does not produce a system allowing a user to provide real-time feedback.**

Claims 10, 12, and 13 of the present application are similar to the claims just discussed, except that they recite "authorizing a plurality of users to provide real-time feedback" rather than "authorizing a user to alter one or more of the assumed variables." The Examiner maintains that there is no patentable distinction between claims 10, 12, and 13, and the claims discussed above that recite a user altering assumed variables. *Examiner's Answer at 21.* Because the claims discussed above are patentable in light of the fatally-flawed Eder/Belani combination, claims 10, 12, and 13 are patentable for the same reasons. Accordingly, the Board should overturn the § 103(a) rejection of claims 10, 12, and 13.

4.   **Eder does not disclose the value streams of the present invention.**

Each of the present application's independent claims include limitations regarding the determination of the outcome of a value stream for a business enterprise. *Appeal Brief at 6.* The Examiner is correct that the only independent claim that recites a *financial* value stream is claim 14. *Examiner's Answer at 17-18.* Nonetheless, the Applicant's discussion of Eder in Part VII.A.3 of the Appeal Brief (pages 6-8) applies equally to value streams of any type, financial or non-financial.

In the Examiner's Answer, she suggests for the first time that Eder discloses the value streams of the present invention by disclosing tracking business valuation over time. *Examiner's Answer at p. 18.* The cited portion of Eder, column 6, lines 44-64, discloses comparing current business valuations to historical business valuations. But the value streams of the present invention can be historical *or future* value streams, and are therefore able to capture, for example, the future benefits associated with a pharmaceutical that has not yet been developed. *Appellant's Specification as filed at 9, ll. 4-6; see also Appeal Brief at 7* (the pharmaceutical example). The cited portion of Eder focuses on *current* and *past* valuations, not *future* value. This is unsurprising given that Eder, as a whole, is focused on determining a precise business valuation at the current point in time. *See, e.g., Eder at 11:5-7* (discussing the "current-operation value" as the foundation of Eder business valuations). Accordingly, Eder does not teach or suggest the value streams of the present invention.

Next, the Examiner cites to Eder column 23, lines 12-24 for the proposition that Eder's "weighted average cost of capital" is comparable to a value stream. Again, however, the two are distinguishable. The value streams of the present invention are defined as "an aggregation of financial and non-financial *benefits….*" *Appellant's Specification as filed at p. 9, ll. 4-6* (emphasis added). The cost of capital, however, is not a benefit, but an *expense*. As explained in Applicant's Appeal Brief, expenses are the opposite of a benefit. *Appeal Brief at 7.* Moreover, the average cost of capital again represents *past* expenses, and cannot include *future* benefits as the value streams of the present invention can. Thus, the weighted average cost of capital cannot be a value stream either.

The Examiner then cites to column 10, lines 41 to 53 and column 11, Table 3 of Eder for the proposition that the "value of current operation" is comparable to the value streams of the present invention. This proposition, however, has been addressed at length in the Applicant's

Appeal Brief and does not need to be revisited here because the Examiner adds nothing new to this proposition. *See Appeal Brief at 7-8.*

Finally, the Examiner argues that it is improper for the Applicant to use definitions from the specification to clarify claim terms. A patent applicant, however, "is free to be his own lexicographer" if a definition is clearly defined in the specification. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995) (en banc), *aff'd* 517 U.S. 370 (1996); *see also Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc) ("the person of ordinary skill in the art is deemed to read the claim term … in the context of the entire patent, including the specification."). Moreover, the Examiner herself uses the Applicant's specification to clarify certain claim terms. *Examiner's Answer at 20, ll. 1-3* (citing pages 8-9 of the specification to define features of the claim term "assumed variables"). Thus, the Applicant's use of the definition of value streams from the specification is proper, and that definition is distinguishable from any of the cited features of Eder, as discussed above.

In sum, Eder does not disclose the value streams of the present invention. Accordingly, the Board should overturn the § 103(a) rejection of claims 1-5, 8-18, and 21-22.

5. Eder does not disclose assumed variables that are tied to at least one future or past event.

Claims 18 and 21-22 of the present application require "determining, by use of the computer system, an outcome for the value stream of the business enterprise based upon the assumed variables and events of the base case scenario" where "the assumed variables" refers to "a plurality of assumed variables that have an influence on a value stream of the business enterprise" and where each assumed variable is tied to "at least one future or past event … that influences the corresponding assumed variable." Eder does not disclose or suggest this method of determining the outcome for a value stream, and the Examiner has not shown otherwise.

In the Examiner's Answer, she suggests for the first time than an "element of value" in Eder is comparable to the events of the present invention. *Examiner's Answer at 19.* The Examiner explains that the two are comparable because an element of value "must be converted into some type of value or variable." But a mere value, such as the numeric value 2, is distinguishable from an event, which, under its broadest definition, is simply something that occurs at a given place and time. Likewise, a variable, such as the variable x in an algebraic equation, is distinguishable from an event in the same way. The Examiner cites to Eder column

11, lines 37-63 and Table 4, which explain that an "element of value" would be, for example, "sales staff." *Eder at 11:44-45*. But sales staff are also distinguishable from an event, which would be more comparable to an actual sale. The Examiner also explains that an "element of value" may have provided benefit as a result of some past transaction. *Examiner's Answer at 19*. But, although the "past transaction" might qualify as an event, the Examiner distinguishes the past transaction from the "element of value" itself. Thus, the "element of value" cannot be an event merely because it is associated with some past transaction.

In short, Eder does not disclose determining the outcome of a value stream by using assumed variables that are tied to "at least one future or past event." Accordingly, the Board should overturn the § 103(a) rejection of claims 18 and 21-22.

6.   **The Patent and Trademark Office has already conceded that Eder bears little relation to the subject matter of the present application.**

The foregoing arguments have already convinced the Patent and Trademark Office to withdrawn its Eder rejections for the application that is the parent of the present application. *See Appeal Brief at 4-5*. Although the claims of the parent application vary from the present application (as they must), the reasons why Eder is inapplicable to the parent application are nonetheless the same reasons why Eder is inapplicable to the present application. As discussed above, Eder and the present invention solve different problems and do so using different methods. Eder focuses on incorporating intangible assets into the valuation of a business of at a given point in time. *See id. at 4*. The present invention, by contrast, focuses on the measurement of value creation over time. *Id.* Because of these differences, Eder does not, for example, disclose a method of analyzing individual value streams. *Id. at 5*.

When these differences were explained on appeal in the parent application, the Examiner of that application withdrew all rejections based on Eder. The Examiner of the present application does not dispute the fundamental differences between Eder and the present invention. *See Examiner's Answer at 16-17* (not disputing the part of applicant's Appeal Brief that explains these differences). Accordingly, the Board should overturn the § 103(a) rejection of claims 1-5, 8-18, and 21-22.
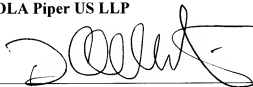
B.   **Conclusion**

In view of the foregoing arguments, claims 1-5, 8-18, and 21-22 are patentable over Eder and Belani and all proposed combinations of those references.

The Commissioner is authorized to charge any additional fees which may be required, including petition fees and extension of time fees, to Deposit Account **No. 07-1896** referencing Attorney Docket **No. 350725-991110**.

Respectfully submitted,

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Dated: September 24, 2007   By: _____

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